

WHAT IS CLAIMED IS:

1. A rotary electric machine comprising:

a rectifier apparatus having positive-side and negative-side heat sinks each mounted with a plurality of diode elements and a circuit board made of a resin in which insert conductors for connecting said diode elements are insert molded, said rectifier apparatus being mounted to a housing by electrically-connecting said negative-side heat sink to said housing and securely fastening said positive-side and negative-side heat sinks and said circuit board to a mounting surface of said housing;

an output terminal for extracting output from said rectifier apparatus; and

a wiring harness terminal mounted to said output terminal,

wherein said rotary electric machine is provided with a mounting member having a head portion disposed at an opposite end from an output extraction end and an output terminal mounting external screw thread portion disposed at said output extraction end, said mounting member being mounted to said positive-side heat sink such that said head portion is in a state of close surface contact with a first surface of said positive-side heat sink, said mounting member passes through said positive-side heat sink, and said output terminal mounting external screw thread portion projects outward from a second surface of said positive-side heat sink,

said output terminal has a coupling seat, a wiring harness terminal mounting external screw thread portion disposed at an output extraction end of said coupling seat and a mounting portion disposed on at an opposite end from said output extraction end of said coupling seat, said output terminal being mounted to said positive-side heat sink by securely fastening said mounting portion to said second surface of said positive-side heat sink in a state of surface contact by means of an output terminal mounting nut screwed onto said output terminal mounting external screw

thread portion such that said coupling seat and said wiring harness terminal mounting external screw thread portion project outward from said housing, and

said wiring harness terminal is securely fastened to said coupling seat in a state of surface contact by means of a wiring harness terminal mounting nut screwed onto said wiring harness terminal mounting external screw thread portion.

2. The rotary electric machine according to Claim 1, wherein said output terminal projects outward from said housing in a radial direction.

3. The rotary electric machine according to Claim 1, wherein an electrically-insulating bush made of a resin is integrally molded with said output terminal to ensure electrically-insulating properties between said output terminal and said housing.

4. The rotary electric machine according to Claim 3, wherein said electrically-insulating bush is mounted to said housing in a loosely-fitted state.

5. The rotary electric machine according to Claim 1, wherein a position at which said mounting member is mounted to said positive-side heat sink is in close proximity to a position at which said rectifier apparatus is securely fastened to said housing.

6. The rotary electric machine according to Claim 5, wherein said position at which said mounting member is mounted to said positive-side heat sink is on an opposite side of said position at which said rectifier apparatus is securely fastened to said housing from said diodes.

7. A rotary electric machine comprising:

a rectifier apparatus having positive-side and negative-side heat sinks each mounted with a plurality of diode elements and a circuit board made of a resin in which insert conductors for connecting said diode elements are insert molded, said rectifier apparatus being mounted to a housing by electrically-connecting said negative-side heat sink to said housing and securely fastening said positive-side and negative-side heat sinks and said circuit board to a mounting surface of said housing;

an output terminal for extracting output from said rectifier apparatus; and

a wiring harness terminal mounted to said output terminal,

wherein said output terminal has a head portion disposed at an opposite end from an output extraction end of said output terminal and an external screw thread portion disposed at said output extraction end of said output terminal, said output terminal being mounted to said positive-side heat sink such that said head portion is in a state of close surface contact with a first surface of said positive-side heat sink, said output terminal passes through said positive-side heat sink, and said external screw thread portion projects outward from said housing,

a tubular relay member is mounted to said output terminal such that a first end of said relay member is in a state of close surface contact with a second surface of said positive-side heat sink, and

said wiring harness terminal is securely fastened to said positive-side heat sink through said relay member by means of a nut screwed onto said external screw thread portion so as to be in a state of close surface contact with a second end of said relay member.

8. The rotary electric machine according to Claim 7, wherein a

position at which said output terminal is mounted to said positive-side heat sink is in close proximity to a position at which said rectifier apparatus is securely fastened to said housing.

9. The rotary electric machine according to Claim 8, wherein said position at which said output terminal is mounted to said positive-side heat sink is on an opposite side of said position at which said rectifier apparatus is securely fastened to said housing from said diodes.